REMARKS

Claims 14-19, 21 and 22 are pending in this application. Claims 14-19 have been amended to define still more clearly what Applicant regards as his invention, in terms that distinguish over the art of record. Claim 20 has been canceled without prejudice or disclaimer of subject matter, and will not be mentioned further. Claims 21 and 22 have been added to assure Applicant of a full measure of protection of the scope to which he deems himself entitled. Claims 14, 19 and 22 are in independent form.

The Office Action rejected Claims 14-19 under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 5,974,171 (Hayashi et al.).

The present invention relates to methods of preparing a patch image. As is well known, this is a step involved in calibrating a color printer to output the colors in an image with high fidelity. The accuracy of the patch, however, may be seriously degraded by the presence of noise. It is conventional to assume that the noise is white nosie, and to attempt to compensate for its presence by expedients based on that assumption. For example, it is known to rotate the patch a number of times, measuring its color in each orientation, so as to reduce the effect of the noise. Also known is a similar technique in which the patch is outputted and measured several times.

In the aspect recited in Claim 14, the invention is a method of determining the arrangement of a patch in a patch image for judging the color reproduction characteristic (or color reproducibility) of an output device. Generally, to judge the reproduction characteristic of the output device, it is necessary to form plural different patches. Moreover, when the output device outputs the patches, noise of various types is

mixed therein. Applicant has found that these types of noise are influenced by the positions of the patches.

More specifically, independent Claim 14 is directed to a method that comprises a setting step, of setting kinds of patches included in the patch image in response to an instruction by the user, a selection step, of selecting the arrangement patch from the patches set in the setting step, and a determination step, of determining the arrangement nonpermission area of the arrangement patch based on the position of the already arranged patch. Also included in the method is an arrangement step, of arranging the arrangement patch in the area other than the arrangement nonpermission area. According to Claim 14, the method causes execution of the selection step, the determination step, and the arrangement step for all the patches set in the setting step.

According to the above feature of determining the position of the arrangement of the patch, in the method of Claim 14, it is possible to arrange for the patch to be subject to a reduced influence of noise, and it is also possible satisfactorily to judge the reproduction characteristic of the output device from the patch image.

Hayashi relates to a marker editing function in a color copying machine, that is, a function that permits a user to employ a marker pen to encircle or trace a desired area, which is then colored by the apparatus in response to the designation by the user. More specifically, in the marker editing function, the content of a black-and-white original which has been marked by a user is detected, and color editing according to the detected result is executed on the black-and-white original. Fig. 2 of *Hayashi* illustrates the color patch sheet which is used when registering the color of the marker. It is to be noted that this sheet is formed based on the color intended to be registered by the user. That is, in

Hayashi, the arrangement of the patch is determined by the user. In the method according to Claim 14, in contrast, the arrangement of the patch is determined automatically.

In addition, in *Hayashi*, the terms "1) Normal area", "2) Paint area", "3) Line area", and "4) Intra-paint line area" (see Fig. 17C, for example) indicate the color editing function and area judged based on the result detected from the marker on the black-and-white original. *Hayashi*, describing the operation of area determination circuit 253 (see Fig. 11B), states that:

> "The normal area designates nothing and an initial value is set to this area. The paint area designates the painting in a closed area although a border black line is the normal area. The line area designates the substitution by the marker color. The intra-paint line area designates a combination of the paint area and the line area, that is, the line area in the paint area.". *Hayashi*, col. 10, lines 37-50.

Thus, it is apparent in *Hayashi* that these areas are different from, and do not suggest, an area to be used to determine the arrangement of a patch image. *Hayashi* is quite silent about the feature of the method of Claim 14 of automatically determining the arrangement of a patch. For at least this reason, it is believed to be clear that Claim 145 is allowable over *Hayashi*.

Independent program Claim 19 and newly added apparatus Claim 21 correspond to method Claim 14 is respect of the features discussed above, and both claims therefore are believed also to be clearly allowable over *Hayashi* for at least the reasons presented with regard to Claim 14.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a

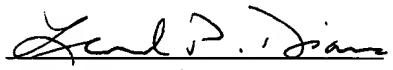
reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from independent Claim 14, and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and the allowance of the present application.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



Leonard P. Diana
Attorney for Applicant
Registration No. 29,296

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 488538v1